

Sodium Acifluorfen (Blazer[®]) Summary

April 4, 2002

Uses

- Sodium acifluorfen is a broad spectrum herbicide registered for use on soybeans, peanuts, and rice for post-emergent weed control.
- Sodium acifluorfen is also registered for use by homeowners as a spot treatment on driveways, sidewalks, and patios.
- Sodium acifluorfen may be applied, either by ground or aerial equipment, at rates of 0.125 to 0.375 lb ai/acre.
- On average, 1.5 million pounds of sodium acifluorfen are applied annually.

Health Effects

- Acute and chronic risk assessments are based on developmental toxicity and effects on the kidney, respectively.
- EPA currently considers sodium acifluorfen as a probable human carcinogen; however, the Registrant is developing additional data on a possible cancer mechanism of action to address the cancer classification.

Risks

Dietary Risks are not of concern

Drinking Water Risks are of possible concern

- Acute and chronic concentrations of sodium acifluorfen are low and not of concern.
- Lifetime cancer risks are of possible concern based on EPA's modeled estimate of the amount of total acifluorfen in groundwater. Acifluorfen has also been detected in ground water monitoring, but this monitoring is not considered appropriate for a national assessment.

Residential Risks are not of concern

Aggregate Risks are of possible concern

- Acute and chronic (non-cancer) risk for food, water, and residential exposure is below the Agency's level of concern.
- Aggregate cancer risk for food, water, and residential exposure exceeds the Agency's level of concern. Risk is driven by modeled estimates of total acifluorfen in ground water.

Worker Risks

- When personal protective equipment required on current labels is used, non cancer risks are not of concern.
- With personal protective equipment, cancer risks are in the range EPA considers not to be of concern.
- For re-entry, all noncancer risks are not of concern on the day of application. Cancer risks are in the range EPA considers to be generally acceptable on the day of application.
- The current restricted entry interval (REI) for sodium acifluorfen is 48 hours based on the acute toxicity.

Ecological Risks

- EPA does not have acute risk concerns for terrestrial animals, freshwater and estuarine animals, or aquatic plants.
- The Agency has chronic risk concerns for plant and insect eating birds, but not for mammals, when acifluorfen is used at a rate of 0.25 lb ai/A and above.
- The Agency is uncertain about risks to freshwater and estuarine animals.
- EPA has some concern for risks to nontarget plants.

How the Risk Picture May Change

- The Registrant is conducting some special studies that may change EPA's determination on the cancer classification.